

NOTES ON INDIAN DESERT PLANTS V: ON THE IDENTITY AND NOMENCLATURE OF  
TWO SUPPOSED NEW SPECIES OF *RHYNCHOSIA* DESCRIBED  
BY BLATTER AND HALLBERG

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ABSTRACT

*Rhynchosia arenaria* and *R. rhombifolia*, which have been described as new species from the Indian Desert by Blatter and Hallberg (1918-1919) have been reduced to the synonymy of *R. schimperi* Hochst. et Steud. ex Boiss. and *R. pulverulenta* Stocks respectively. Both the authors have come to identical conclusions independently and the present communication deals with the identity and nomenclature of these two species. A large number of specimens examined from the entire range have been given and since no photographs or diagrams of the plants have yet been published, the line drawings have been provided here which might facilitate their identification.

INTRODUCTION

Blatter and Hallberg (1918-1919) in their Flora of the Indian Desert, described two new species of *Rhynchosia* i.e., *R. arenaria* and *R. rhombifolia*. During the course of the preparation of the Flora of the N.W. Rajasthan Desert, while examining the specimens of a few species of this genus at the Central National Herbarium, Calcutta, one of the authors (M. M. Bhandari) came across a few sheets which compared well with *R. arenaria* Blatt. & Hallb. while others matched with *R. rhombifolia* Blatt. & Hallb. These results were then communicated to Mr. J. B. Gillett who passed them on to the other author (B. Verdcourt) who had already dealt with the problem whilst writing up the genus *Rhynchosia* for the Flora of Tropical East Africa. The results were included in a paper the publication of which is likely to be delayed. Both authors have come to identical conclusions and the present communication deals with the identity and correct nomenclature of these two species. All the specimens are at Kew unless otherwise stated. Since no diagrams of these species have ever been published, their line drawings are given here, which may facilitate their identification.

***Rhynchosia arenaria* Blatt. & Hallb.**

Since its first description, this species has not been reported. Blatter and Hallberg (1918) based it on four specimens i.e., Blatter & Hallberg 6942, 6943,

6945 and 6946, all of which are still preserved in the Blatter Herbarium, Bombay. In the absence of any indication of the type, Santapau (1959) selected Blatter & Hallberg 6942 as the lectotype of this species.

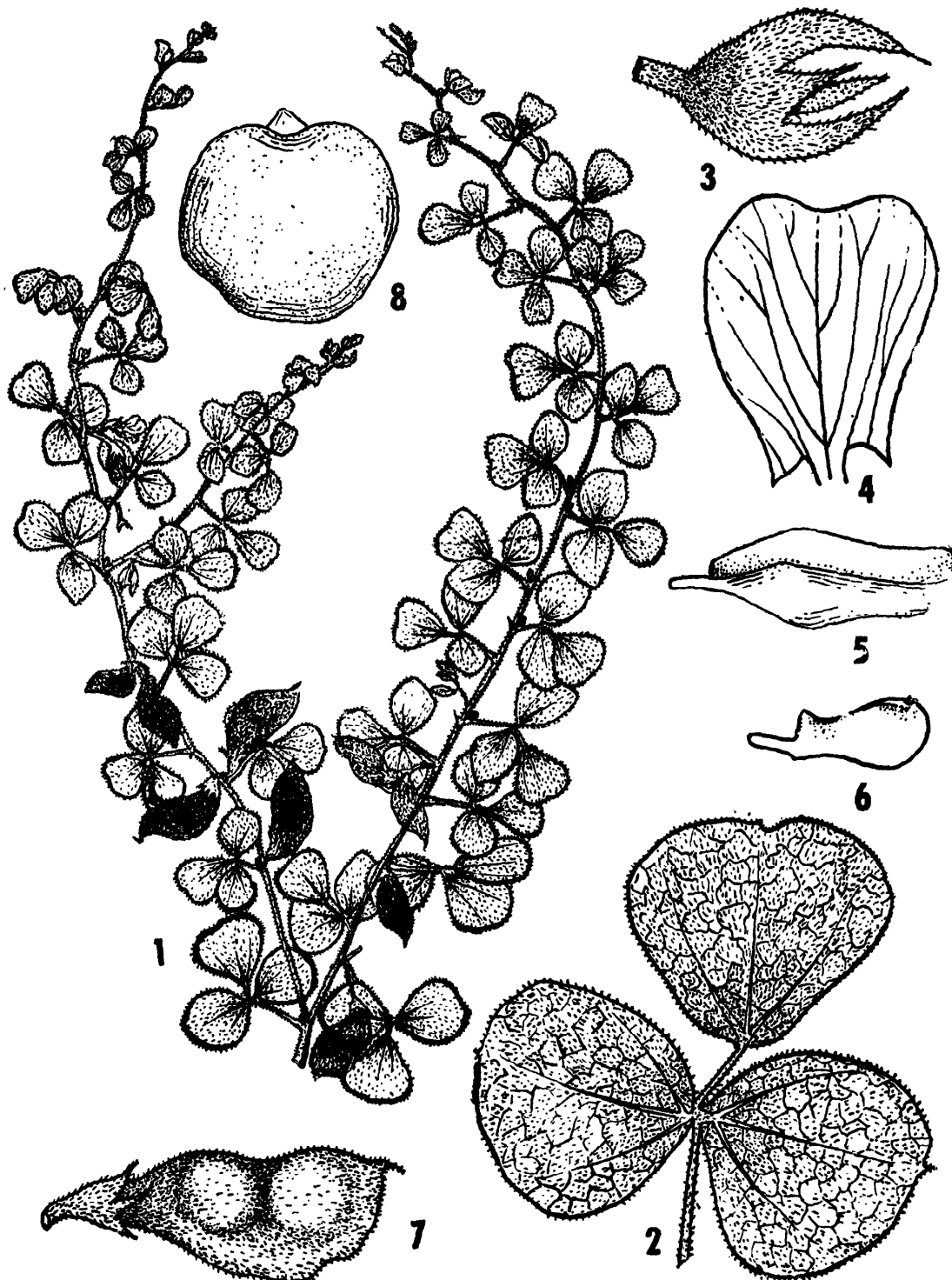
An examination of isosyntypes and other specimens of *R. schimperi* Hochst. et Steud. ex Boiss. preserved at Kew and the Central National Herbarium, Calcutta, leaves no doubt that it is conspecific with *R. arenaria*. The first mention of this plant is as *Glycine schimperi* Hochst. et Steud., a *nomen nudum*, appearing on the label of a specimen collected in Arabia by Schimper. Steudel mentioned it in 1840 but Boissier was the first to provide a validating description basing it on Schimper's specimen and another syntype. Thus the correct identity and nomenclature of this species is as under:

***Rhynchosia schimperi* Hochst. et Steud. ex Boiss.**, Fl. Orient. 2: 626 (1872); Schwartz in Mitt. Inst. Bot. Hamburg 10: 115 (1939). *Glycine schimperi* Hochst. et Steud., Nom. Bot. 2(1): 691 (1840) (*nomen nudum*). *Rhynchosia arenaria* Blatt. & Hallb. in J. Bombay nat. Hist. Soc. 26: 243 (1918); Santapau in *Ibid.* 26: 279 (1959).

This species has in the past been confused with *R. minima* (L.) DC., var. *memnonia* (Del.) Cooke but clearly differs from that by its short inflorescences, which is sometimes reduced to a single

flower and the characteristic leaflet shape. The *minima* complex which has been considerably con-

fused, is now dealt with by one of the authors (B. V., in the press).



*Rhynchosia schimperi* Hochst. et Steud. ex Boiss.

Figs. 1-8 : 1. A portion of branch, 2. A leaf enlarged, 3. Calyx, 4. Standard petal, 5. Keel petal, 6. Wing petal, 7. A pod, 8. A seed.

*Herbarium specimens examined:* ARABIA: Tihamra: Jedda, *Zohrab* 292; hills near Jedda, on mobile dunes, *Fischer* 63: 11.2 km E of Jedda, stony ground, 30 m, 24 Mar. 1950, *Trott* 1439:—bush with yellow flowers near Jedda, granite hills, unstable sand, 25 Dec. 1835, *Schimper* 774 (G, syntype, CAL 129449, isosyntype, K three isosyntypes):—Subclimbing plant to 60 cm. Oman: Muscat, *Aucher* 4359 (G, syntype). INDIA: Rajasthan: Jodhpur, Massuria, Central Arid Zone Research Institute, Farm, *Bhandari* 98 (JAC):—probably planted; Massuria, Central Arid Zone Research Institute, Farm. *Rolla* 67192:—a small shrub in the nursery, leaves very thick and hairy, white, nerves prominent and hairy probably due to cultivation, fruits red; Barmer, Mungaria, between Gadra Road and Shiv, 29 Sept. 1962, *Bhandari* 1566 (JAC); 1594 (JAC, K):—extensively branched perennial with trailing branches; Barmer, on rocks, *Blatter & Hallberg* 6943 (BLAT); Loharki, *Blatter & Hallberg* 6942 (lectotype of *R. arenaria*, BLAT, K, photo.), 6945, 6994 (BLAT). W. PAKISTAN: Probably from Sind, *Dalzell* (CAL).

***Rhynchosia rhombifolia* Blatt. & Hallb.**

Also described as a new species by *Blatter & Hallberg* (1918), it was based on *Blatter & Hallberg* 6947, 6948 & 6949, all from Jaisalmer. Santapau (1959) selected *Blatter & Hallberg* 6948 as the lectotype of this species; since no indication of the type was given at the time of the original description.

An examination of holotype and other specimens of *R. pulverulenta* preserved at Kew and the Central National Herbarium, Calcutta, leaves no doubt that it is indistinguishable with *R. rhombifolia* of *Blatter & Hallberg*.

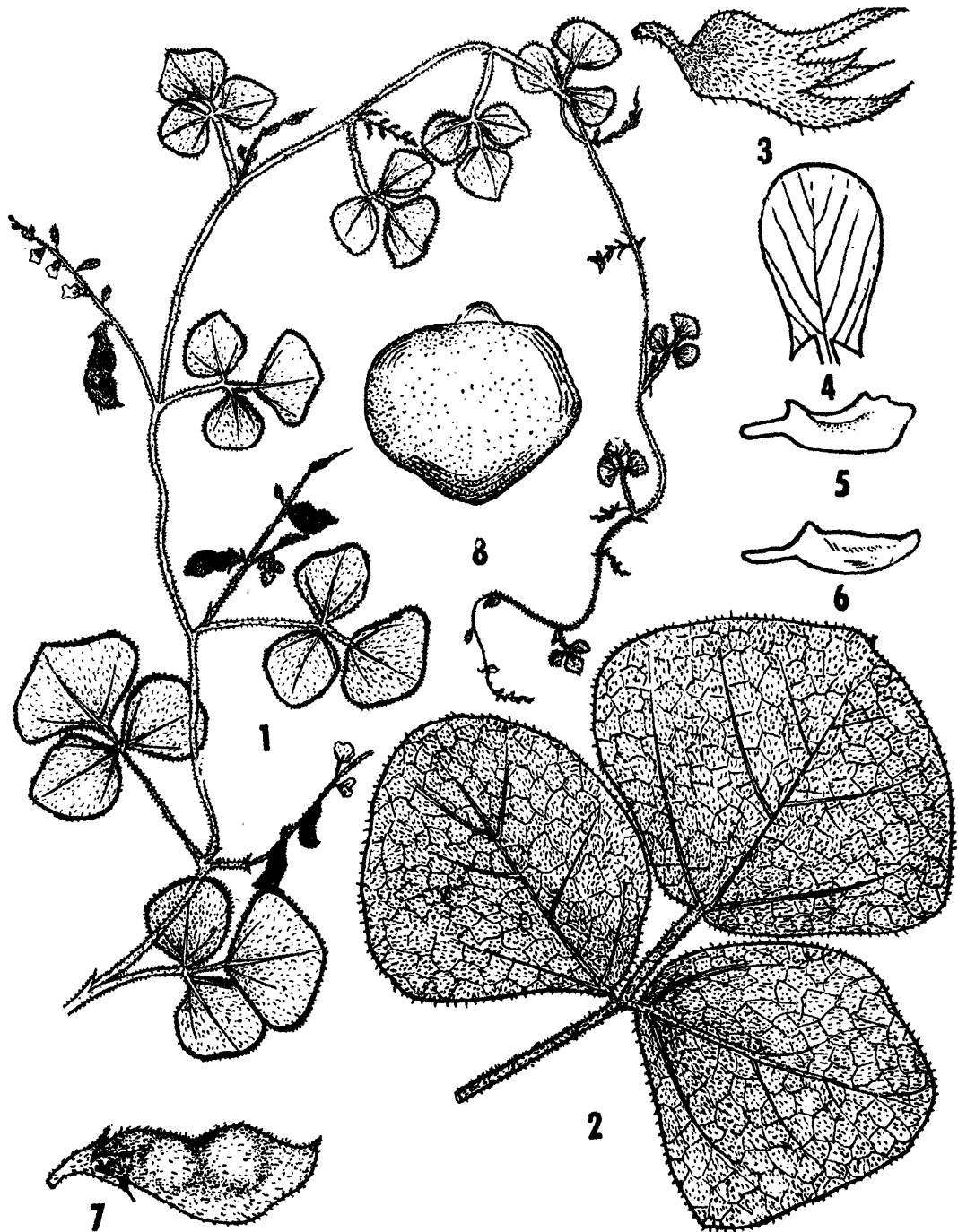
This has usually been placed in the synonymy of *R. minima* var. *memnonia*, at least so far as the herbarium covers are concerned, but the plant has a very characteristic appearance, the short inflorescences (sometimes reduced to only one or two flowers), the peculiar grey-green colour and the very closely placed pale gland-dots on the under-surfaces of the leaflets rendering it immediately identifiable. Its affinities seem to be with *R. schimperi* Boiss. (Arabia and India), *R. cliffordii* Hutch. & Bruce [Somali Republic (N)] and *R. candida* (Hiern) Torre (Angola and S-W Africa) and its distribution fits in with the theory of a former arid corridor extending from S.-W. Africa to Rajasthan. Specimens

seen are cited below. Terracciano when reducing it to the rank of a form states "Anders. non Stocks pro species", presumably referring to Flor. Aden: 17 (1860) but Anderson saw Stocks' Sind material and presumably interpreted it correctly. The synonymy is as follows:

***R. pulverulenta*** Stocks in Hook. Bot. Kew Misc 4: 147 (1852); Boiss., Fl. Orient. 2: 625, 1872. *R. memnonia* (Del.) DC. f. *pulverulenta* (Stocks) Terrace. in Ann. R. Ist. Bot. Roma 5: 110, 1893. *R. elachistantha* Chiov. in Ann. R. Ist. Bot. Roma 8: 100, t. 11, f. 1, 1903. *R. rhombifolia* *Blatter & Hallb.* in J. Bombay nat. Hist. Soc. 26: 242, 1918; Santapau in *Ibid.* 56: 279, 1959 non (Willd.) DC. *R. memnonia* auct. e.g. *Blatter* in Rec. Bot. Surv. India 8: 174, 1921; Schwartz in Mitt. Inst. Bot. Hamburg 10: 114 *pro parte* non (Del.) DC.

*Herbarium specimens examined:* ARABIA: Tihamra: 22.4 km NNE of Jedda, Buraiman Camp, 90 m, 10 Feb. 1951, *Trott* 1550:—sprawling bush with yellow flowers; 41.6 km NNE of Jedda, 150 m, 14 Apr. 1951, *Trott* 1551; 24 km NNE of Jedda, rocky stony places, 90 m, Feb. 1950 *Trott* 1381; yellow flowers. Aden: Aden, *Bayley Balfour*; *Thomson*, Khusaf Valley, wadi bed, 15 m, Feb. 1958, *Waring* 46:—standard pale yellow with faint green streaks, wings yellow-green, keel yellow. Dhofar Mts., *Bent*. INDIA: Rajasthan: Barmer, river bed, 25 Sept. 1959, *Bhandari* 445 (K, JAC): *Bhandari* 1873; 1874 (JAC); Jaisalmer, *Blatter & Hallberg* 6947 (BLAT, syntype of *R. rhombifolia*); and *Bhandari* 990; 991 (JAC), Jaisalmer, Amarsagar; *Blatter & Hallberg* 6948\* (BLAT, lectotype of *R. rhombifolia*, K, photo); 6949 (BLAT, syntype of *R. rhombifolia*) and *Vasvani* (JAC); 4.8 km from Jaisalmer towards Ramgarh, *Rolla* 67118 (BSI). PAKISTAN: Sind: Jemidar Ka Landa, near Kurrachee (Karachi), *Stocks* 658 (K, holotype); Sind, without locality, *Stocks* 1147 (CAL 129302); *Stocks* (K, CAL 129309); near Karachi, Drigh Road, semi-desert, Feb. 1945, *Stearn* 33; 38; Sind Desert, near Karachi 2 Aug. 1919, *Blatter* 28133 (BLAT). SOCOTRA: Haghier Massif, *Balfour* 458. SUDAN REPUBLIC: Kassala: Red Sea. Tamanrib, *Lord*: Jebel Elba, Wady Rabdeit, 23 Jan. 1933, *Shabetai* 1797; about 21° latitude on Nubian coast, 900-1200 m, *Bent*. Korodofan: Abu-Gerad, *Kotschy* 40; Mazrub, clay depression, 19 Aug. 1962, *Wickens* 173, El Schiak, *Pfund* 266; Abu

\*A photograph of 6948 is preserved at Kew; the original citation 6849 is probably an error for 6949.

*Rhynchosia pulverulenta* Stocks

Figs. 1-8 : 1. A portion of branch. 2. A leaf enlarged. 3. Calyx. 4. Standard petal. 5. Keel petal. 6. Wing petal. 7. A pod. 8. A seed.

Sinun, *Pfund* 475. ETHIOPIA: Eritrea: Assaorta, Aboteglade, 3 April, 1892, *Terracciano & Pappi* 21 (EI, holotype of *R. elachistantha*). Ogaden: 11.2 km on road from Scillave to Gabredarre, open bush country on red sandy soil, 360 m, 12 Apr. 1956, *Simmons* 171 (EA, K):—small plant to 15 cm with yellow flowers. SOMALI REPUBLIC (N): 112 km from Borama, Darkahomaga, plain, 690 m, 27 Feb. 1945, *Glover & Gilliland* 811 (EA, K). Afard: 10°10' N, 44°8' E, *Commiphora-Acacia* open scrub on slopes, 540 m, 26 Oct. 1932, *Gillett* 4479:—Climber with yellow flowers. TANZANIA: Masai District: 4.8 km E. of Lake Manyara, near mouth of R. Mkuyuni.

*Commiphora schimperi* open bushland and grassland on fine grey soil and gravel of old lake beds, *Lamprey* 501 (EA):—erect slightly woody herb with small yellow flowers. SOUTH WEST AFRICA: Omaruru: Otjihoronga Reserve, Ngab, Assigab, *Merxmüller & Giess* 1625 (M, K) (large-flowered variant, see below).

The South West African specimen cited above is intermediate with *R. candida* (Hiern) Torre. Unfortunately only a single flower is present on the sheet and this has a standard about 7 mm wide. Even if further work questions the exact identity of the specimen, the undoubted affinity is phytogeographically of equal interest.